

Title (en)
ELECTROCHEMICAL ATTACHMENT OF PHOSPHONIC ACIDS TO METALLIC SUBSTRATES AND ANTIMICROBIAL MEDICAL DEVICES CONTAINING SAME

Title (de)
ELEKTROCHEMISCHE BEFESTIGUNG VON PHOSPHONSÄUREN AUF METALLISCHEN SUBSTRATEN UND ANTIMIKROBIELLE MEDIZINISCHE VORRICHTUNGEN DAMIT

Title (fr)
FIXATION ÉLECTROCHIMIQUE D'ACIDES PHOSPHONIQUES À DES SUBSTRATS MÉTALLIQUES ET DISPOSITIFS ANTIMICROBIENS MÉDICAUX CONTENANT UNE TELLE FIXATION

Publication
EP 3990195 A1 20220504 (EN)

Application
EP 20832712 A 20200619

Priority
• US 201962866492 P 20190625
• US 2020038688 W 20200619

Abstract (en)
[origin: US2020404905A1] A method of preparing a modified-metal surface. The method includes preparing a solution of a phosphorous-based acid in a solvent; immersing a strip of the metal work piece into the solution of the phosphorous-based acid; immersing a strip of a reference metal into the solution of the phosphorous-based acid; supplying a voltage for a duration of time to prepare a phosphorous acid-modified metal work piece; removing the phosphorous acid-modified metal work piece; cleaning and drying the phosphorous acid-modified metal work piece; applying a chitosan solution to the surface in order to attach chitosan/modified chitosan to the phosphorous acid based modified surface; prepare the modified-metal surface; and cleaning and drying the modified-metal surface.

IPC 8 full level
B05D 1/28 (2006.01); **B05D 3/00** (2006.01); **C25D 5/48** (2006.01)

CPC (source: EP US)
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Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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US 11540514 B2 20230103; **US 2020404905 A1 20201231**; EP 3990195 A1 20220504; EP 3990195 A4 20231004; US 2023121929 A1 20230420; WO 2020263704 A1 20201230

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US 202016906573 A 20200619; EP 20832712 A 20200619; US 2020038688 W 20200619; US 202218078469 A 20221209